



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/542,300	11/30/2005	Christophe Naulet	274267US6PCT	5268
22850	7590	03/10/2011		
OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, L.L.P. 1940 DUKE STREET ALEXANDRIA, VA 22314				
EXAMINER DONDERO, WILLIAM E				
ART UNIT 3654		PAPER NUMBER		
NOTIFICATION DATE 03/10/2011		DELIVERY MODE ELECTRONIC		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patentdocket@oblon.com  
oblonpat@oblon.com  
jgardner@oblon.com

### Office Action Summary

**Application No.**

10/542,300

**Applicant(s)**

NAULET ET AL.

**Examiner**

WILLIAM E. DONDERO

**Art Unit**

3654

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 18 January 2011.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 12, 14, 23 and 25-28 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 12, 14, 23 and 25-28 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 July 2008 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-946)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

#### ***Continued Examination Under 37 CFR 1.114***

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on December 27, 2010 has been entered.

#### ***Claim Rejections - 35 USC § 103***

Claims 12, 14, 23, and 25-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Green (US-3041663) in view of Schiminski et al. (US-4431138), Schippers et al. (US-5016829), Ideno et al. (US-4511095), Sakurauchi (JP-06329437), and Westrich (US-6105896). Regarding Claims 12, 14, and 25, Green discloses a winding machine comprising a frame 42,48; a spindle (shaft of motor 44) fastened to the frame, the spindle being configured to support at least one cake 18 and to be moveable in rotation about a first axis substantially perpendicular to the diameter of the cake; at least one positioning and guidance device 24 configured to move the at least at least

one thread with a primary stroke movement to position and guide the at least one thread on the spindle; a linear actuator 46 configured to continuously drive the spindle in a secondary stroke movement simultaneously with the primary stroke movement to wind the cake such that the spindle moves linearly in forward and reverse directions along the first axis during winding of the at least one thread (Figures 1-2). Green does not expressly disclose the frame including a barrel positioned on the frame; at least two spindles fastened to the barrel; a thread drawer including at least two motor-driven rollers configured to hold at least one thread at a first position before the thread is attached to any of the at least two spindles, the rollers being fastened to the frame of the winding machine at a position directly below the at least two spindles; a straight ejector positioned above the at least two spindles and configured to move the thread from the first position to a second position such that the thread is attached to one of the spindles; a thread retraction device configured to displace the at least one thread by grasping the thread and rotating between a second position, in which the at least one thread is attached to one of the spindles and retracted from the positioning and guidance device, and a third position, in which the at least one thread is engaged with the positioning and guidance device; a control and command device configured to ensure a regulation of speed and/or of position between a primary stroke movement of the positioning and guidance device and a secondary stroke movement of at least one of the spindles; an indexing device configured to control a position of the barrel with respect to the frame by continuously modifying an angular position of the barrel as a function of a variation in the outside diameter of the cake, to keep a path of the thread

constant between its exit point from the positioning and guidance device and its contact point on a periphery of the cake; wherein the barrel is mounted movably in rotation with respect to the frame along a third axis of rotation substantially parallel to the first axis.

However, Schiminski et al. teach a winding machine comprising a frame including a barrel 18 positioned on the frame, at least two spindles 9.1,9.2 fastened to the barrel, each of the spindles being configured to support at least one cake 8 and to be movable in rotation about a first axis substantially perpendicular to a diameter of the cake; at least one positioning and guidance device 1 configured to move the at least one thread with a primary stroke movement to position and guide at least one thread 6 on the spindles; an actuator configured to drive the spindles in a secondary stroke movement such that the spindles move linearly in forward and reverse directions along the first axis (see Column 4, Line 68 – Column 5, Line 4); and a thread retraction device 11 configured to displace the at least one thread by grasping the thread and rotating between a second position, in which the at least one thread is attached to one of the spindles and retracted from the positioning and guidance device, and a third position, in which the at least one thread is engaged with the positioning and guidance device; wherein the barrel is mounted movably in rotation with respect to the frame along a third axis of rotation substantially parallel to the first axis (Figures 1-12). It would have been obvious to one of ordinary skill in the art at the time of the invention to mount two spindle systems of Green of a barrel as taught by Schminski et al. to allow one or more cakes to be wound while full cakes can be removed as taught by Schminski et al.

Further, Schippers et al. teach a winding machine comprising a thread retraction device 25 positioned above at least one positioning and guidance device 4 and configured to displace at least one thread 3 by grasping the thread and rotating between a second position (Figure 1B), in which the at least one thread is attached to one of the spindles and retracted from the positioning and guidance device, and a third position (Figure 1A), in which the at least one thread is engaged with the positioning and guidance device (Figures 1-8). It would have been obvious to one of ordinary skill in the art at the time of the invention to move the thread retraction device of Green in view of Schminski et al. to above the positioning and guidance device as taught by Schippers et al. to achieve the predictable result of allowing the thread to be disengaged from the positioning and guidance device.

Furthermore, Ideno et al. teach a thread drawer including at least two motor-driven rollers 9,10,11 configured to hold at least one thread 2b at a first position before the thread is attached to any of at least two spindles 6,6', the rollers being fastened to the frame of the winding machine at a position directly below the at least two spindles; a straight ejector 16 positioned above the at least two spindles and configured to move the thread from the first position to a second position such that the thread is attached to one of the spindles; and the thread overlaps a distal end of the one of the spindles when the thread is held at the first position (see Figure 6) (Figures 1-18). It would have been obvious to one of ordinary skill in the art at the time of the invention to add the thread drawer and straight ejector of Ideno et al. to the winding machine of Green to assist with starting the winding of new packages as taught by Ideno et al.

Moreover, Sakurauchi discloses a winding machine with a control and command device 39 configured to ensure a regulation of speed and/or of position between a primary stroke movement of the positioning and guidance device and a secondary stroke movement of at least one of the spindles (Translation Page 8-9, Paragraph [0020]). It would have been obvious to one of ordinary skill in the art at the time of the invention to add the command and control device of Sakurauchi to the machine of Green in view of Schminski et al., Schippers et al., and Ideno et al. to have precise control of the winding parameters producing the desired package as taught by Green (Column 3, Line 54 – Column 4, Line 2).

Additionally, Westrich teaches a winding machine comprising a index device configured to control a position of the barrel with respect to the frame by continuously modifying an angular position of the barrel as a function of a variation in the outside diameter of the cake, to keep a path of the thread constant between its exit point from the positioning and guidance device and its contact point on a periphery of the cake (Column 10, Line 60 – Column 11, Line 17). It would have been obvious to one of ordinary skill in the art at the time of the invention to use the index device of Westrich in the machine of Green in view of Schminski et al., Schippers et al., and Ideno et al. to control the shape, size, and quality of the package as taught by Westrich.

Regarding Claim 14, Green discloses wherein the positioning and guidance device includes at least one helix 27 mounted movably in rotation about a second axis, substantially parallel to the first axis (Figures 1-2).

Regarding Claim 27, Green does not expressly disclose wherein to of the positioning and guidance devices overlap the spindles in a lengthwise direction.

However, Sakurachi teaches a winding machine wherein two positioning and guidance devices 13 overlap the spindles in a lengthwise direction (Figures 2-4). It would have been obvious to one of ordinary skill in the art at the time of the invention to add another positioning and guidance device overlapping the spindles in Green to allow more than one cake to be wound simultaneously as taught by Sakurachi.

Regarding Claims 23 and 26, Green disclose a method for winding cakes, comprising positioning a first spindle (shaft out of motor 44) within a frame 42,48; rotating (via 44) the first spindle having a thread attached thereto around a first axis; guiding and positioning (via 24) the thread onto the first spindle with a primary stroke movement of the positioning and guidance device; driving continuously (via 46) the first spindle in a secondary stroke movement simultaneously with the primary stroke movement to wind a cake onto the first spindle such that the first spindle moves linearly in forward and reverse directions along the first axis while the first spindle is in the thread receiving position (Figures 1-2). Green does not expressly disclose positioning the first spindle and a second spindle on a barrel located within a frame; rotating the barrel so that the first spindle is in a thread receiving position; holding at least one thread at a first position with rollers before the thread is attached to the first spindle or the second spindle, the rollers being fastened to the frame of the winding machine at a

position directly below the first spindle and the second spindle; moving the thread from the first position to a second position with a straight ejector positioned above the first spindle and the second spindle such that the thread is attached to the first spindle; grasping the thread with a thread retraction device positioned above a positioning and guidance device and rotating the thread and retraction device grasping the thread between the second position, in which the thread is attached to the first spindle and retracted from the positioning and guidance device, and a third position, in which the thread is engaged with the positioning and guidance device; regulating speed and/or position between the primary stroke movement of the positioning and guidance device and the secondary stroke movement of at least the first spindle; modifying continuously an angular position of the barrel with respect to the frame as a function of a variation in an outside diameter of the cake formed on the first spindle, to keep a path of the thread constant between its exit point from the positioning and guidance device and its contact point on a periphery of the cake; after driving the first spindle linearly in the forward and reverse directions, rotating the barrel so that the second spindle is in the thread receiving position; and wherein the thread overlaps a distal end of the first spindle when the thread is held at the first position.

However, Schminiski et al. teach a method for winding cakes comprising positioning a first spindle 9.1 and a second spindle 9.2 on a barrel 18 located within a frame; rotating the barrel so that the first spindle is in a thread receiving position; grasping a thread 6 with a thread retraction device 11 and rotating the thread between a second position, in which the thread is attached to the first spindle and retracted from a

positioning and guidance device 1, and a third position, in which the thread is engaged with the positioning and guidance device; rotating the first spindle having the thread around a first axis; guiding and positioning the thread onto the spindle with a primary stroke movement of the positioning and guidance device; driving the first spindle in a secondary stroke movement linearly in forward and reverse directions along the first axis (see Column 4, Line 68 – Column 5, Line 4); and after building up the thread on the first spindle, rotating the barrel so that the second spindle is in the thread receiving position (Figures 1-12). It would have been obvious to one of ordinary skill in the art at the time of the invention to mount two spindle systems of Green of a barrel as taught by Schminski et al. to allow one or more cakes to be wound while full cakes can be removed as taught by Schminski et al.

Further, Schippers et al. disclose a method for winding cakes, comprising grasping a thread 3 with a thread retraction device 25 positioned above a positioning and guidance device 4 and rotating the thread retraction device grasping the thread between a first position (Figure 1B), in which the thread is retracted from the positioning and guidance device, and a second position (Figure 1A), in which the thread is engaged with the positioning and guidance device (Figures 1-8). It would have been obvious to one of ordinary skill in the art at the time of the invention to move the thread retraction device of Green in view of Schminski to above the positioning and guidance device as taught by Schippers et al. to achieve the predictable result of allowing the thread to be disengaged from the positioning and guidance device.

Furthermore, Ideno et al. disclose a method for winding cakes comprising holding at least one thread 2b at a first position with rollers 9,10,11 before the thread is attached to a first spindle 6 or a second spindle 6', the rollers being fastened to the frame of the winding machine at a position directly below the first spindle and the second spindle; moving the thread from the first position to a second position with a straight ejector 16 positioned above the first spindle and the second spindle such that the thread is attached to the first spindle; and wherein the thread overlaps a distal end of the first spindle when the thread is held at the first position (see Figure 6) (Figures 1-17). It would have been obvious to one of ordinary skill in the art at the time of the invention to add the rollers and straight ejector and the corresponding method steps of Ideno et al. to the method of Green to assist with starting the yarn on the new package as taught by Ideno et al.

Moreover, Sakurauchi discloses a method for winding cakes comprising regulating(via a control and command device 39) speed and/or of position between a primary stroke movement of the positioning and guidance device and a secondary stroke movement of at least one of the spindles (Translation Page 8-9, Paragraph [0020]). It would have been obvious to one of ordinary skill in the art at the time of the invention to add the command and control device of Sakurauchi to the machine of Green in view of Schminski et al., Schippers et al., and Ideno et al. to have precise control of the winding parameters producing the desired package as taught by Green (Column 3, Line 54 – Column 4, Line 2).

Additionally, Westrich teaches a method for winding cakes comprising modifying continuously an angular position of the barrel with respect to a frame as a function of a variation in the outside diameter of the cake formed on a first spindle, to keep a path of the thread constant between its exit point from the positioning and guidance device and its contact point on a periphery of the cake (Column 10, Line 60 – Column 11, Line 17). It would have been obvious to one of ordinary skill in the art at the time of the invention to use the index device of Westrich in the machine of Green in view of Schminski et al., Schippers et al., and Ideno et al. to control the shape, size, and quality of the package as taught by Westrich.

Regarding Claim 28, Green does not expressly disclose wherein to of the positioning and guidance devices overlap the spindles in a lengthwise direction.

However, Sakurauchi teaches a method for winding cakes wherein two positioning and guidance devices 13 overlap the spindles in a lengthwise direction (Figures 2-4). It would have been obvious to one of ordinary skill in the art at the time of the invention to add another positioning and guidance device overlapping the spindles in Green to allow more than one cake to be wound simultaneously as taught by Sakurauchi.

### ***Response to Arguments***

With respect to Applicant's arguments starting on page 6, line 13 to page 8, line 11, Applicant argues a proper combination of Schminski et al. in view of Green does not

disclose or render obvious each and every feature of Claims 12 and 23, because modifying Schminski by Green would change the principle of Schminski and Schminski already forms a package without the modifications of Green; and further, Schippers, Ideno, Sakurauchi, and Westrich do not overcome the deficiencies. Applicant's arguments with respect to claims 12 and 23 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to WILLIAM E. DONDERO whose telephone number is (571)272-5590. The examiner can normally be reached on M - F 7 AM - 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael R. Mansen can be reached on 571-272-6608. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/WILLIAM E DONDERO/  
Primary Examiner, Art Unit 3654